

Hyper-V & SCVMM: Live Migration & Failover Cluster

Learn to deploy, migrate and manage Hyper-V virtual machines and clusters using SCVMM, live migration and failover clustering.

8 Days

DURATION

32

TOPICS

COURSE OVERVIEW

This course covers planning for virtualization and creating and configuring virtual hard disks and virtual machines in Hyper-V, followed by networking configuration and live and storage migration. It then addresses installing and configuring System Center Virtual Machine Manager, managing storage and networking fabric, library objects, clouds, and services. Later modules cover monitoring virtualization infrastructure with System Center Operations Manager, implementing Hyper-V Replica and Azure Site Recovery, and protecting infrastructure with Data Protection Manager. The course concludes with Hyper-V architecture, virtual machine configuration and memory management, and failover clustering topics including cross-domain cluster migrations, stretched clusters and cluster sets.

WHO THIS COURSE IS FOR

Virtualization Administrators

System Center Administrators

Infrastructure Engineers

Cloud Administrators

Data Centre Engineers

LEARNING OBJECTIVES

- Assess candidates and plan for virtualization deployments
- Create and configure virtual hard disks and virtual machines
- Configure Hyper-V networking with virtual switches and adapters
- Apply live migration and storage migration between hosts
- Install and configure System Center Virtual Machine Manager
- Manage storage fabric, networking fabric and library objects
- Implement Hyper-V Replica and Azure Site Recovery
- Configure failover clustering including stretched and cluster sets

32 Topics

DAY 1**Configuring and Administering Hyper-V in Windows Server 2022****01****Planning for Virtualization****TOPICS**

Overview of Microsoft Virtualization · Assessment of Virtualization Candidates · Planning for Virtualization

02**Creating and Configuring Virtual Hard Disks and Virtual Machines****TOPICS**

Creating and Configuring Virtual Hard Disks · Creating and Configuring Virtual Machines · Managing Virtual Machine Snapshots · Virtual Machine Import

DAY 2**03****Configure Networking in Hyper-V****TOPICS**

Advanced features of Virtual Network Adapters · Hyper-V Network Virtualization · Hyper-V Extensible Switch

04**Hyper-V Migration****TOPICS**

Live Migration Overview · Storage Migration Overview · Live Migration Security · Live Migration using SMB

DAY 3**20745 - Topics of SCVMM****01****Installing and Configuring System Center 2016 Virtual Machine Manager****02****Managing Storage Fabric and Fabric Updates****03****Configuring and Managing Virtual Machine Manager Library and Library Objects**

DAY 4

04

Managing the Networking Fabric

05

Creating and Managing Virtual Machines by Using Virtual Machine Manager

06

Managing Clouds in Microsoft System Center 2016 Virtual Machine Manager

DAY 5

07

Managing Services in Virtual Machine Manager

08

Monitoring Virtualization Infrastructure by Using System Center Operations Manager

09

Implementing and Managing Hyper-V Replica and Azure Site Recovery

DAY 6

10

Protecting Virtualization Infrastructure by Using Data Protection Manager

TOPICS

Hyper-V Architecture · Hyper-V Host Management · Windows Admin Center · Gen1 vs Gen2

DAY 7

TOPICS

- VM Configuration Versions
- VM Files
- Memory Management in Hyper-V
- Virtual Machine Processor Configurations
- Numa
- Discrete Device Assignment Support
- vPMEM (virtual persistent memory) component level view

DAY 8

Theory session

TOPICS

- Enhanced Session Mode
- Live Migration between 2019 to 2022 with configuration version
- Failover Cluster
- Cross Domain Cluster Migrations - Demo
- Azure Aware Clusters
- Stretched Cluster
- Cluster Set - Demo

NOTES

- Additional topics the client has requested: VMware to Hyper-V migration, Patching, Monitoring

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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